

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>JNTTCS-4-PCT</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/JP2005/002514</b>	International filing date (day/month/year) <b>10/02/2005</b>	(Earliest) Priority Date (day/month/year) <b>10/02/2004</b>
Applicant  <b>NTT COMMUNICATIONS CORPORATION</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2005/002514

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H04L9/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 411 716 B1 (BRICKELL ERNEST F) 25 June 2002 (2002-06-25) abstract column 15, line 33 - column 16, line 32 column 20, line 19 - column 23, line 41 column 24, line 8 - column 25, line 15 -----	1-6, 15, 16
X	EP 0 723 348 A (INTERNATIONAL BUSINESS MACHINES CORPORATION) 24 July 1996 (1996-07-24) abstract page 5, line 45 - page 13, line 54 figures 3-5 ----- -/--	1, 2, 4-6, 15, 16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

7 June 2005

Date of mailing of the international search report

16/06/2005

Name and mailing address of the ISA

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International Application No  
PCT/JP2005/002514

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 675 649 A (BRENNAN ET AL) 7 October 1997 (1997-10-07) abstract column 3, line 28 - column 6, line 10 figures 1-3 -----	1,2,4-6, 15,16
X	US 6 209 091 B1 (SUDIA FRANK W ET AL) 27 March 2001 (2001-03-27) abstract column 4, line 42 - column 9, line 34 column 12, line 15 - column 13, line 41 column 21, line 44 - column 24, line 36 column 25, line 65 - column 26, line 12 figures 1,22,23 -----	1-6,15, 16

# INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No  
PC1/JP2005/002514

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6411716	B1	25-06-2002	US 5867578 A 02-02-1999
		AU 718265 B2 13-04-2000	
		AU 5552196 A 24-12-1996	
		BR 9608416 A 29-12-1998	
		CA 2223305 A1 12-12-1996	
		CN 1192834 A 09-09-1998	
		EP 0872080 A1 21-10-1998	
		GB 2301919 A ,B 18-12-1996	
		GB 2337145 A ,B 10-11-1999	
		IL 118363 A 17-02-2000	
		JP 11506222 T 02-06-1999	
		NZ 306846 A 28-01-2000	
		NZ 500372 A 27-04-2001	
		WO 9639765 A1 12-12-1996	
		US 6209091 B1 27-03-2001	
		US 5825880 A 20-10-1998	
		ZA 9603635 A 19-11-1996	
EP 0723348	A	24-07-1996	US 5625692 A 29-04-1997
			EP 0723348 A2 24-07-1996
			JP 3256427 B2 12-02-2002
			JP 8251157 A 27-09-1996
US 5675649	A	07-10-1997	NONE
US 6209091	B1	27-03-2001	US 5825880 A 20-10-1998
			US 2002013898 A1 31-01-2002
			AU 718265 B2 13-04-2000
			AU 5552196 A 24-12-1996
			BR 9608416 A 29-12-1998
			CA 2223305 A1 12-12-1996
			CN 1192834 A 09-09-1998
			EP 0872080 A1 21-10-1998
			GB 2301919 A ,B 18-12-1996
			GB 2337145 A ,B 10-11-1999
			IL 118363 A 17-02-2000
			JP 11506222 T 02-06-1999
			NZ 306846 A 28-01-2000
			NZ 500372 A 27-04-2001
			WO 9639765 A1 12-12-1996
			US 6411716 B1 25-06-2002
			US 5867578 A 02-02-1999
			ZA 9603635 A 19-11-1996
			AP 626 A 16-01-1998
			AT 202439 T 15-07-2001
			AU 1680395 A 01-08-1995
			AU 4461999 A 28-10-1999
			AU 705473 B2 20-05-1999
			AU 6084296 A 10-10-1996
			BR 9506414 A 09-09-1997
			CA 2176032 A1 20-07-1995
			CN 1138927 A 25-12-1996
			CZ 9601978 A3 12-03-1997
			DE 69521413 D1 26-07-2001
			DE 69521413 T2 29-05-2002
			DK 739560 T3 01-10-2001
			EP 0739560 A1 30-10-1996
			ES 2158081 T3 01-09-2001

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PC1/JP2005/002514

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6209091	B1	GR 3036650 T3	31-12-2001
		HU 75800 A2	28-05-1997
		JP 9507729 T	05-08-1997
		NZ 279622 A	27-04-1998
		NZ 329891 A	28-01-2000
		OA 10456 A	27-03-2002
		PL 315574 A1	12-11-1996
		PT 739560 T	28-12-2001
		WO 9519672 A2	20-07-1995
		US 5857022 A	05-01-1999
		US 6009177 A	28-12-1999
		US 5872849 A	16-02-1999
		US 5850451 A	15-12-1998
		US 5799086 A	25-08-1998
		US 5841865 A	24-11-1998

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